

Appln. No.: 10/615,522
Amendment Dated JUNE 18, 2007
Reply to Office Action of April 10, 2007

MICR-153US

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Remarks/Arguments:

Claims 1-20 are pending in the above-referenced application. Claims 1-20 were rejected. Claims 11 and 13 have been amended. No new material is introduced herein.

Claims 1-16 and 18-20 were rejected under 35 U.S.C. § 102(b) as anticipated by Bird (U.S. Patent No. 5,721,422). Claim 17 was rejected under 35 U.S.C. § 103(a) as obvious over Bird and Baer (U.S. Patent No. 6,914,230). Applicant respectfully traverses the rejections of claims 1-20. In particular Bird does not disclose or suggest "a bias circuit operable to apply voltages across the pixels to induce carrier injection into the photodiode regions to reduce image lag," as required by claim 1. Claim 18 includes a similar recitation. In addition, pursuant to 35 U.S.C. § 103(c), Baer is not a proper prior art reference under 35 U.S.C. § 103(a) against the subject application.

Bird discloses a photodiode array with pairs of columns of photodiodes sharing a single column conductor. As shown in Fig. 1, for example, columns 10A and 10B of photodiodes 8 share column conductor 11a. To allow for reading out specific photodiodes 8 within the pair of columns, the array includes reference conductors 1 and 2, row conductors 21 and switches S1 and S2. In operation, to select a row of photodiodes 8 for readout, the desired row is pulsed at -5V. To read out an individual photodiode within that row, reference conductors 1 and 2 are pulsed at either -2.5V or -7.5V. For example, to read out photodiode 8 of pixel 10A, row conductor 21a is pulsed at -5V, reference conductor 1 is pulsed at -2.5V and reference conductor 2 is pulsed at -7.5V. In this way, switches S1 and S2 in pixel 10A are forward biased so as to read out photodiode 8 of pixel 10A. Switches S1 and S2 of all other pixels are reverse-biased so as to prevent read out of the photodiodes of those pixels.

At paragraph 2 of the Office Action, the Examiner argues that "[i]t is inherent that forward biasing the pixel element 8 in the Bird reference induces carrier injection into the photodiode region thus reducing image lag, since it is an effect of biasing the pixel." While forward-biasing a pixel element may induce carrier injection in the photodiode region of a pixel, the photodiodes disclosed in Bird cannot be forward-biased. This is because the voltage at which the common column conductor is pulsed is carefully selected so as to always reverse-bias the photodiode. Specifically, at column 8, lines 18-23, Bird states: "the photosensitive diodes 8 must always be reverse-biased" (emphasis added). Thus, Bird does not disclose "a bias circuit operable to apply voltages across the pixels to induce carrier injection into the photodiode regions to reduce image lag," as required by claims 1 and 18. Indeed, Bird teaches

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away from this feature. Accordingly, Bird does not disclose all the features of claims 1 and 18 and, thus, these claims are not subject to rejection under 35 U.S.C. § 102(b) as being anticipated by Bird.

Baer can not be the basis for a § 103 rejection against the above-referenced application because Baer is a reference only under 35 U.S.C. § 102(e) and because the subject matter of Baer and the presently claimed invention "were, at the time the claimed invention was made, subject to . . . an obligation of assignment to the same [party]." See MPEP 706.02(I)(1). At the time the subject application was filed, both Baer and the subject application were assigned to Agilent Technologies, Inc. Accordingly, Baer and Bird cannot be the basis for any rejection under 35 U.S.C. § 103 against the present application. Moreover, Applicant notes that Baer can not be used to reject claims 1 and 18 under 35 U.S.C. § 102(e) because these claims require that the bias circuit applies "voltages across pixels." The apparatus described by Baer can apply a bias voltage to only a single pixel.

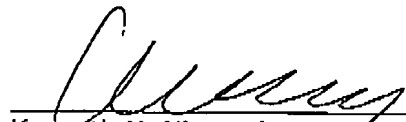
Because neither Bird does not disclose features of claims 1 and 18 and because Baer is not a prior art reference under 35 U.S.C. § 103(a), claims 1 and 18 are not subject to rejection under 35 U.S.C. § 102(b) as anticipated by Bird. Furthermore, because, as described above, Bird teaches away from the subject invention as defined by claims 1 and 18 These claims are not subject to rejection under 35 U.S.C. § 103(a) in view of Bird. Claims 2-17 depend from claim 1 and claims 19 and 20 depend from claim 18. Accordingly, claims 2-16 and 19-20 are not subject to rejection under 35 U.S.C. § 103(a) as obvious over Bird and Baer for at least the reasons set forth above.

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In view of the foregoing amendments and remarks, Applicants request that the Examiner reconsider and withdraw the rejections of claims 1-20.

Respectfully submitted,


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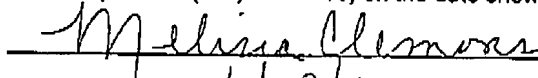
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